

Db	202	CKRCPDGFFSNETSSKAPCCKHNTCSVFGGLLTQKGNAATHDNTCSGNSESTOKCGIDVT	QY
		seeafffravptkftbnwlsvlvdnlpgtknaesverikrghssqeqffqlklwkhn	261
Qy	202	CEEAFFRFAVPTKTFPNWLVLVDNLPGTKNAESVERIKRHOHSQEQFTQLKLWKHN	261
Db	262	kdqdkikkldqdlcensvqrhghanitfegqrlsmeslpgkqvaedektkackp	321
	262	KDQDKIKKLDQDLCENSVQRHGHANITFEGQRLSMESLPGKQVAEDEKTIACKP	321
Qy	322	sdqiklislwrikqdgatiklqmalhalktyhpktvqslkirkfhsftmky	381
Db	322	sdqiklislwrikqdgatiklqmalhalktyhpktvqslkirkfhsftmky	381
Qy	322	SDQIKLISLWRIKQDGATIKLQMLALKHSKTYHPKTVQSLKKTIRFLHSFTMKY	381
Db	382	qkflfemignqavskisc	401
Qy	382	OKLFLEMIGNQVOSVKISCL	401
	JLT	4	
	R99931	standard; Protein; 401 AA.	
AC	R99931;		
DT	22-APR-1997	(first entry)	
DE	Mutated OCIF, OCIF-C19S.		
KW	Osteoclastogenesis Inhibitory factor; OCIF; heparin; bone resorption; osteoporosis.		
OS	Synthetic.		
FH	Key	Location/Qualifiers	
FT	Peptide	1..21	
FT	/note= "Signal peptide"		
FT	Protein	22..401	
FT	/note= "Mature OCIF-C19S"		
FT	Misc-difference	195	
FT	/label= C19S		
PN	W09626217-A1.		
PD	29-AUG-1996.		
PF	20-FEB-1995; JP-054977.		
PR	21-JUL-1995; JP-207508.		
PA	(SNOW) SNOW BRAND MILK PROD CO LTD.		
PI	Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;		
PI	Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H;		
WPI	96-023202/01.		
DR	N-PSDB; T33161.		
PT	DNA encoding osteoclastogenesis inhibitory factor protein - useful for bone resorption control, esp. treatment of osteoporosis		
nc	Claim 29; Page 94-95; 183pp; Japanese.		
	This sequence represents a mutated version of the full length osteoclastogenesis inhibitory factor (OCIF) of the invention. This sequence represents OCIF-C19S in which the 19th CYS residue in the mature OCIF protein is substituted by Ser. The OCIF of the invention has a molecular weight by SDS-PAGE of 60 KD under reducing conditions and 120 KD under non-reducing conditions. The protein is adsorbed onto cation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg. C. OCIF is useful in the control of bone resorption and therefore in the treatment and prevention of disorders of bone resorption, e.g. osteoporosis.		
SQ	Sequence 401 AA;		
	Query Match	99.5%	Score 2847; DB 20; Length 401;
	Best Local Similarity	99.7%	Pred. No. 3..39e-277; Indels 0; Gaps 0;
	Matches	379;	Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Db	22	etfppkyhydeetshqldckcpqpgtylkqhtcktwktvcapcdphytswhtdecl	81
Qy	22	ETPPKYHYDEETSQHQCKDCKCPQPGTYLKQHTCKTWKTVCAPCDPHYTWSHTDECL	81
Db	82	ycspvckelqyvqgecnrthrvceckegryleiefclkhscapcpafgvqagtperntv	141
Qy	82	YCSVPCKELQYVQGECNRTHRVCECKEGRYLEIEFCLKHSCAPCPAFGVQAGTPERNTV	141
Db	142	ckrcpdgffsnethstslapcrkrhtnccvfglltqkgnathdicsgnsstcksgldvt	201
	JLT	5	
	RESULT	5	
	ID	R99933	standard; Protein; 401 AA.
AC	R99933;		
DT	22-APR-1997	(first entry)	
DE	Mutated OCIF, OCIF-C21S.		
KW	Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption; osteoporosis.		
OS	Synthetic.		
FH	Key	Location/Qualifiers	
FT	Peptide	1..21	
FT	/note= "Signal peptide"		
FT	Protein	22..401	
FT	/note= "Mature OCIF-C21S"		
FT	Misc-difference	277	
FT	/label= C21S		
PN	W0626217-A1.		
PD	29-AUG-1996.		
PF	20-FEB-1996; JP00374.		
PR	20-FEB-1995; JP-054977.		
PR	21-JUL-1995; JP-207508.		
PA	(SNOW) SNOW BRAND MILK PROD CO LTD.		
PI	Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;		
PI	Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H;		
WPI	96-023202/40.		
DR	N-PSDB; T33161.		
PT	DNA encoding osteoclastogenesis inhibitory factor protein - useful for bone resorption control, esp. treatment of osteoporosis		
PS	Claim 35; Page 98-100; 183pp; Japanese.		
CC	This sequence represents a mutated version of the full length osteoclastogenesis inhibitory factor (OCIF) of the invention. This sequence represents OCIF-C21S in which the 21st Cys residue in the mature OCIF protein is substituted by Ser. The OCIF of the invention has a molecular weight by SDS-PAGE of 60 KD under reducing conditions and 120 KD under non-reducing conditions. The protein is adsorbed onto cation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg. C or 30 mins at 56 deg. C, and is lost after 10 mins at 90 deg. C. OCIF is useful in the control of bone resorption and therefore in the treatment and prevention of disorders of bone resorption, e.g. osteoporosis.		
SQ	Sequence 401 AA;		
	Query Match	99.4%	Score 2843; DB 20; Length 401;
	Best Local Similarity	99.2%	Pred. No. 8..80e-277; Indels 0; Gaps 0;
	Matches	377;	Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db	22	etfppkyhydeetshqldckcpqpgtylkqhtcktwktvcapcdphytswhtdecl	81
Qy	22	ETPPKYHYDEETSQHQCKDCKCPQPGTYLKQHTCKTWKTVCAPCDPHYTWSHTDECL	81
Db	82	ycspvckelqyvqgecnrthrvceckegryleiefclkhscapcpafgvqagtperntv	141
Qy	82	YCSVPCKELQYVQGECNRTHRVCECKEGRYLEIEFCLKHSCAPCPAFGVQAGTPERNTV	141
	JLT	5	
	RESULT	5	
	ID	R99933	standard; Protein; 401 AA.
AC	R99933;		
DT	22-APR-1997	(first entry)	
DE	Mutated OCIF, OCIF-C21S.		
KW	Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption; osteoporosis.		
OS	Synthetic.		
FH	Key	Location/Qualifiers	
FT	Peptide	1..21	
FT	/note= "Signal peptide"		
FT	Protein	22..401	
FT	/note= "Mature OCIF-C21S"		
FT	Misc-difference	277	
FT	/label= C21S		
PN	W0626217-A1.		
PD	29-AUG-1996.		
PF	20-FEB-1996; JP00374.		
PR	20-FEB-1995; JP-054977.		
PR	21-JUL-1995; JP-207508.		
PA	(SNOW) SNOW BRAND MILK PROD CO LTD.		
PI	Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;		
PI	Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H;		
WPI	96-023202/40.		
DR	N-PSDB; T33161.		
PT	DNA encoding osteoclastogenesis inhibitory factor protein - useful for bone resorption control, esp. treatment of osteoporosis		
PS	Claim 35; Page 98-100; 183pp; Japanese.		
CC	This sequence represents a mutated version of the full length osteoclastogenesis inhibitory factor (OCIF) of the invention. This sequence represents OCIF-C21S in which the 21st Cys residue in the mature OCIF protein is substituted by Ser. The OCIF of the invention has a molecular weight by SDS-PAGE of 60 KD under reducing conditions and 120 KD under non-reducing conditions. The protein is adsorbed onto cation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg. C or 30 mins at 56 deg. C, and is lost after 10 mins at 90 deg. C. OCIF is useful in the control of bone resorption and therefore in the treatment and prevention of disorders of bone resorption, e.g. osteoporosis.		
SQ	Sequence 401 AA;		
	Query Match	99.4%	Score 2843; DB 20; Length 401;
	Best Local Similarity	99.2%	Pred. No. 8..80e-277; Indels 0; Gaps 0;
	Matches	377;	Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db	22	etfppkyhydeetshqldckcpqpgtylkqhtcktwktvcapcdphytswhtdecl	81
Qy	22	ETPPKYHYDEETSQHQCKDCKCPQPGTYLKQHTCKTWKTVCAPCDPHYTWSHTDECL	81
Db	82	ycspvckelqyvqgecnrthrvceckegryleiefclkhscapcpafgvqagtperntv	141
Qy	82	YCSVPCKELQYVQGECNRTHRVCECKEGRYLEIEFCLKHSCAPCPAFGVQAGTPERNTV	141
	JLT	5	
	RESULT	5	
	ID	R99933	standard; Protein; 401 AA.
AC	R99933;		
DT	22-APR-1997	(first entry)	
DE	Mutated OCIF, OCIF-C21S.		
KW	Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption; osteoporosis.		
OS	Synthetic.		
FH	Key	Location/Qualifiers	
FT	Peptide	1..21	
FT	/note= "Signal peptide"		
FT	Protein	22..401	
FT	/note= "Mature OCIF-C21S"		
FT	Misc-difference	277	
FT	/label= C21S		
PN	W0626217-A1.		
PD	29-AUG-1996.		
PF	20-FEB-1996; JP00374.		
PR	20-FEB-1995; JP-054977.		
PR	21-JUL-1995; JP-207508.		
PA	(SNOW) SNOW BRAND MILK PROD CO LTD.		
PI	Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;		
PI	Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H;		
WPI	96-023202/40.		
DR	N-PSDB; T33161.		
PT	DNA encoding osteoclastogenesis inhibitory factor protein - useful for bone resorption control, esp. treatment of osteoporosis		
PS	Claim 35; Page 98-100; 183pp; Japanese.		
CC	This sequence represents a mutated version of the full length osteoclastogenesis inhibitory factor (OCIF) of the invention. This sequence represents OCIF-C21S in which the 21st Cys residue in the mature OCIF protein is substituted by Ser. The OCIF of the invention has a molecular weight by SDS-PAGE of 60 KD under reducing conditions and 120 KD under non-reducing conditions. The protein is adsorbed onto cation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg. C or 30 mins at 56 deg. C, and is lost after 10 mins at 90 deg. C. OCIF is useful in the control of bone resorption and therefore in the treatment and prevention of disorders of bone resorption, e.g. osteoporosis.		
SQ	Sequence 401 AA;		
	Query Match	99.4%	Score 2843; DB 20; Length 401;
	Best Local Similarity	99.2%	Pred. No. 8..80e-277; Indels 0; Gaps 0;
	Matches	377;	Conservative 2; Mismatches 1; Indels 0; Gaps 0;
Db	22	etfppkyhydeetshqldckcpqpgtylkqhtcktwktvcapcdphytswhtdecl	81
Qy	22	ETPPKYHYDEETSQHQCKDCKCPQPGTYLKQHTCKTWKTVCAPCDPHYTWSHTDECL	81
Db	82	ycspvckelqyvqgecnrthrvceckegryleiefclkhscapcpafgvqagtperntv	141
Qy	82	YCSVPCKELQYVQGECNRTHRVCECKEGRYLEIEFCLKHSCAPCPAFGVQAGTPERNTV	141
	JLT	5	
	RESULT	5	
	ID	R99933	standard; Protein; 401 AA.
AC	R99933;		
DT	22-APR-1997	(first entry)	
DE	Mutated OCIF, OCIF-C21S.		
KW	Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption; osteoporosis.		
OS	Synthetic.		
FH	Key	Location/Qualifiers	
FT	Peptide	1..21	
FT	/note= "Signal peptide"		
FT	Protein	22..401	
FT	/note= "Mature OCIF-C21S"		
FT	Misc-difference	277	
FT	/label= C21S		
PN	W0626217-A1.		
PD	29-AUG-1996.		
PF	20-FEB-1996; JP00374.		
PR	20-FEB-1995; JP-054977.		
PR	21-JUL-1995; JP-207508.		
PA	(SNOW) SNOW BRAND MILK PROD CO LTD.		
PI	Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;		
PI	Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H;		
WPI	96-023202/40.		
DR	N-PSDB; T33161.		
PT	DNA encoding osteoclastogenesis inhibitory factor protein - useful for bone resorption control, esp. treatment of osteoporosis		
PS	Claim 35; Page 98-100; 183pp; Japanese.		
CC	This sequence represents a mutated version of the full length osteoclastogenesis inhibitory factor (OCIF) of the invention. This sequence represents OCIF-C21S in which the 21st Cys residue in the mature OCIF protein is substituted by Ser. The OCIF of the invention has a molecular weight by SDS-PAGE of 60 KD under reducing conditions and 120 KD under non-reducing conditions. The protein is adsorbed onto cation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg. C or 30 mins at 56 deg. C, and is lost after 10 mins at 90 deg. C. OCIF is useful in the control of bone resorption and therefore in the treatment and prevention of disorders of bone resorption, e.g. osteoporosis.		
SQ	Sequence 401 AA;		

Db 142 ckrcpdgffsnetsskapcrkhtcsvfqlltdqgnathdnicsgnsestqkgidvtl 201
 Qy 142 CKRCPDGFFSNETSSKAPCRKHTCSVFGLLTQKGNAHDNICSNSESIQCGIDVTL 201

Db 202 ceeafffrfvptktpnwsvlvanlpqkvnnesverikrgqssqefqqlkluhqn 261
 Qy 202 CEEAFFRFVPTKTPNWLSVLVNDLPGTKVNAESVERIKROHSSQEQTFOLKLWKHQN 261

Db 262 kdqavkkliqdkalsensvqrlighanltfeqlslneslpqkkvaedektiackp 321
 Qy 262 KQDQIVKKLIQDKALSENSVQRLIGHANLTFEQLSLENESLPQKKVAEDEKTIACKP 321

Db 322 sdqikllslwrikngdqatlgmlhalkshtyhfptkvtslkktirflhtftmykly 381
 Qy 322 SDQIKLULSLWRIKNGDQDTLKGMLHALKHSKTYHFKPTVTOSLKKTIRFLHSFTMVKLY 381

Db 382 qkiflemiqngqsvkiscl 401
 Qy 382 QKLFLEMIGNQVOSVKISCL 401

.JLT
 ID R99942 standard; Protein: 399 AA.
 AC R99942;
 DT 23-APR-1997 (first entry)
 DE Mutated OCIF, OCIF-CL.
 KW Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
 KW osteoporosis.
 OS Synthetic.
 FH Location/Qualifiers
 FT Peptide 1..21
 FT Pepidpe 1..21
 FT /note= "Signal peptide"
 FT Protein 22..399
 FT /note= "Mature OCIF-CL"
 FT /note= "Mature OCIF-CL"
 PN WO926217-A1.
 PD 29-FEB-1996; JPO0374.
 PR 20-FEB-1996; JPO034977.
 PR 21-JUL-1995; JP-207508.
 PR (SNOW) SNOW BRAND MILK PROD CO LTD.
 PI Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;
 PI Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H;
 DR WPI; 96-402320/40.
 PT DNA encoding osteoclastogenesis inhibitory factor protein - useful
 PT for bone resorption control, esp. treatment of osteoporosis
 PS Claim 62; Page 117-119; 183pp; Japanese.
 This sequence represents a mutated version of the full length
 osteoclastogenesis inhibitory factor (OCIF) of the invention. This
 sequence represents OCIF-CL in which amino acids 379-380 of the
 mature OCIF protein are deleted. The OCIF of the invention
 has a molecular weight by SDS-PAGE of 60 kD under reducing conditions
 and 120 kD under non-reducing conditions. The protein is adsorbed onto
 carbon-exchangers or heparin and its activity is lowered after 10 mins
 at 70 deg.C or 30 mins at 56 deg.C, and is lost after 10 mins at 90
 deg.C. OCIF is useful in the control of bone resorption and therefore
 in the treatment and prevention of disorders of bone resorption, e.g.
 CC osteoporosis. 399 AA;
 SQ Sequence . 401 AA;
 Query Match 99.3%; Score 2840; DB 20; Length 399;
 Best Local Similarity 100.0%; Pred. No. 1.80e-276; Mismatches 0; Indels 0; Gaps 0;
 Matches 378; Conservative 0;
 Query Match 99.3%; Score 2841; DB 20; Length 401;
 Best Local Similarity 99.5%; Pred. No. 1.42e-276; Mismatches 1; Indels 0; Gaps 0;
 Matches 378; Conservative 1;
 Db 22 etifppklyhydeetshqilckdcapppgtylkghctakwtkvcapcdphyytdwhsdec1 81
 Qy 22 ETIFPPKLYHYDEETSHQILCKDCAPPPGTYLKGHCTAKWTKVCAPCDPHYYTDWHSDEC1 81

Db 82 ycspvckelqyqvkqecntrhnrveckegryleiefckhrscppgfwvqgqtpenrtv 141
 Qy 82 YCSPVCKELQYQVKQECNRTHNRVECKEGRYLEIEFCKHRSCPPGFWVQACTPERNTV 141

Db 142 ckrcpdgffsnetsskapcrkhtcsvfqlltqgnathdnicsgnsestqkgidvtl 201
 Qy 142 CKRCPDGFFSNETSSKAPCRKHTCSVFGLLTQKGNAHDNICSNSESIQCGIDVTL 201

Db 202 ceeafffrfvptktpnwsvlvanlpqkvnnesverikrgqssqefqqlkluhqn 261
 Qy 202 CEEAFFRFVPTKTPNWLSVLVNDLPGTKVNAESVERIKROHSSQEQTFOLKLWKHQN 261

Db 262 kdqavkkliqdkalsensvqrlighanltfeqlslneslpqkkvaedektiackp 321
 Qy 262 KQDQIVKKLIQDKALSENSVQRLIGHANLTFEQLSLENESLPQKKVAEDEKTIACKP 321

Db 322 sdqikllslwrikngdqatlgmlhalkshtyhfptkvtslkktirflhtftmykly 381
 Qy 322 SDQIKLULSLWRIKNGDQDTLKGMLHALKHSKTYHFKPTVTOSLKKTIRFLHSFTMVKLY 381

Db 382 qkiflemiqngqsvkis 399
 Qy 382 QKLFLEMIGNQVOSVKIS 399

RESULT 7
 ID R99934 standard; Protein: 401 AA.
 AC R99934;
 DT 22-APR-1997 (first entry)
 DE Mutated OCIF, OCIF-C22S.
 KW Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption;
 KW osteoporosis.
 OS Synthetic.
 FH Location/Qualifiers
 FT Key
 FT Peptide 1..21
 FT /note= "Signal Peptide"
 FT Protein 22..401
 FT /note= "Mature OCIF-C22S"
 FT Misc_difference 277
 FT /label= C22S
 PN WO926217-A1.
 PD 29-AUG-1996.
 PR 20-FEB-1996; JPO0374.
 PR 20-FEB-1995; JP-054977.
 PR 21-JUL-1995; JP-207508.
 PR (SNOW) SNOW BRAND MILK PROD CO LTD.
 PI Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;
 PI Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H;
 DR WPI; 96-402320/40.
 DR N-PSDB; T33172.
 PT DNA encoding osteoclastogenesis inhibitory factor protein - useful
 PT for bone resorption control, esp. treatment of osteoporosis
 PS Claim 38; Page 100-102; 183pp; Japanese.
 This sequence represents a mutated version of the full length
 osteoclastogenesis inhibitory factor (OCIF) of the invention. This
 sequence represents OCIF-C22S in which the 22nd Cys residue in the
 mature OCIF protein is substituted by Ser. The OCIF of the invention
 has a molecular weight by SDS-PAGE of 60 kD under reducing conditions
 and 120 kD under non-reducing conditions. The protein is adsorbed onto
 carbon-exchangers or heparin and its activity is lowered after 10 mins
 at 70 deg.C or 30 mins at 56 deg.C, and is lost after 10 mins at 90
 deg.C. OCIF is useful in the control of bone resorption and therefore
 in the treatment and prevention of disorders of bone resorption, e.g.
 CC osteoporosis.
 SQ Sequence . 401 AA;
 Query Match 99.3%; Score 2840; DB 20; Length 399;
 Best Local Similarity 100.0%; Pred. No. 1.80e-276; Mismatches 0; Indels 0; Gaps 0;
 Matches 378; Conservative 0;
 Query Match 99.3%; Score 2841; DB 20; Length 401;
 Best Local Similarity 99.5%; Pred. No. 1.42e-276; Mismatches 1; Indels 0; Gaps 0;
 Matches 378; Conservative 1;
 Db 22 etifppklyhydeetshqilckdcapppgtylkghctakwtkvcapcdphyytdwhsdec1 81
 Qy 22 ETIFPPKLYHYDEETSHQILCKDCAPPPGTYLKGHCTAKWTKVCAPCDPHYYTDWHSDEC1 81

Db 82 ycspvckelqyqvkqecntrhnrveckegryleiefckhrscppgfwvqgqtpenrtv 141
 Qy 82 YCSPVCKELQYQVKQECNRTHNRVECKEGRYLEIEFCKHRSCPPGFWVQACTPERNTV 141

RESULT 8

ID R9935; standard: Protein; 401 AA.
 AC R9935;
 FT 22-APR-1997; (first entry)
 DE Mutated OCIF, OCIF-C23S
 KW Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption; synthetic.

OS Synthetic.

Key Location/Qualifiers

FT Peptide 1..21
 FT /note= "Signal peptide"
 FT Protein 22..401
 FT /note= "Mature OCIF-C23S"
 FT Misc.Difference 400
 FT /label= C23S
 PN W09626217A1.
 PD 29-AUG-1996.
 PR 20-FEB-1995; JP-054977.
 PR 21-JUL-1995; JP-207508.
 PR (SNOW) SNOW BRAND MILK PROD CO LTD.
 PI Gott M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;
 PI Nakadawa N, Shimura N, Tsuda E, Ueda M, Yano K, Yasuda H;
 WPI: 96-40320/40.
 DR N-PSB; T3165.

DR DNA encoding osteoclastogenesis inhibitory factor protein - useful for bone resorption control, esp. treatment of osteoporosis

CC Claim 41; Page 103-105; 183pp; Japanese.

CC This sequence represents a mutated version of the full length osteoclastogenesis inhibitory factor (OCIF) of the invention. This sequence represents OCIF-C23S in which the 23rd Cys residue in the mature OCIF protein is substituted by Ser. The OCIF of the invention has a molecular weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under non-reducing conditions. The protein is adsorbed onto activation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg.C or 30 mins at 56 deg.C, and is lost after 10 mins at 90 deg.C. OCIF is useful in the control of bone resorption and therefore in the treatment and prevention of disorders of bone resorption, e.g. osteoporosis.

CC Sequence 401 AA.

Query Match 99.0%; Score 2833; DB 20; Length 401;
 Best Local Similarity 99.5%; Pred. No. 9.57e-276; Mismatches 378; Conservative 0; Indels 0; Gaps 0;

RESULT 9

ID R9948; standard: Protein; 393 AA.
 AC R9948;
 FT 23-APR-1997; (first entry)
 DE Mutated OCIF, OCIF-CBst.
 KW Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption; synthetic.

OS Synthetic.

Key Location/Qualifiers

FT Peptide 1..21
 FT /note= "Signal peptide"
 FT Protein 22..393
 FT /note= "Mature OCIF-CBst"
 FT /label= Gln371Ieu
 PN W09626217A1.
 PD 29-AUG-1996.
 PR 20-FEB-1995; JP-054977.
 PR 21-JUL-1995; JP-207508.
 PR (SNOW) SNOW BRAND MILK PROD CO LTD.
 PI Gott M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;
 PI Nakadawa N, Shimura N, Tsuda E, Ueda M, Yano K, Yasuda H;
 WPI: 96-40320/40.
 DR N-PSB; T3178.

DR DNA encoding osteoclastogenesis inhibitory factor protein - useful for bone resorption control, esp. treatment of osteoporosis

CC Claim 80; Page 126-128; 183pp; Japanese.

CC This sequence represents a mutated version of the full length osteoclastogenesis inhibitory factor (OCIF) of the invention. This sequence represents OCIF-CBst in which Gln 371 is substituted by Leu and amino acids 373-380 of the mature OCIF protein are deleted. These changes are caused by the introduction of a restriction site in the DNA encoding this protein. The OCIF of the invention has a molecular weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under non-reducing conditions. The protein is adsorbed onto activation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg.C or 30 mins at 56 deg.C, and is lost after 10 mins at 90 deg.C. OCIF is useful in the control of bone resorption and therefore in the treatment and prevention of disorders of bone resorption, e.g. osteoporosis.

CC Sequence 393 AA;

Query Match 97.7%; Score 2794; DB 20; Length 393;
 Best Local Similarity 99.7%; Pred. No. 1.05e-271; Mismatches 371; Conservative 0; Gaps 1; Indels 0;

RESULT 10

ID R9951; standard: Protein; 382 AA.
 AC R9951;
 FT 22-APR-1997; (first entry)
 DE Mutated OCIF, OCIF-CBst.
 KW Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption; synthetic.

OS Synthetic.

Key Location/Qualifiers

FT Peptide 1..21
 FT /note= "Signal peptide"
 FT Protein 22..382
 FT /note= "Mature OCIF-CBst"
 FT /label= Gln371Ieu
 PN W09626217A1.
 PD 29-AUG-1996.
 PR 20-FEB-1995; JP-054977.
 PR 21-JUL-1995; JP-207508.
 PR (SNOW) SNOW BRAND MILK PROD CO LTD.
 PI Gott M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;
 PI Nakadawa N, Shimura N, Tsuda E, Ueda M, Yano K, Yasuda H;
 WPI: 96-40320/40.
 DR N-PSB; T3178.

DR DNA encoding osteoclastogenesis inhibitory factor protein - useful for bone resorption control, esp. treatment of osteoporosis

CC Claim 80; Page 126-128; 183pp; Japanese.

CC This sequence represents a mutated version of the full length osteoclastogenesis inhibitory factor (OCIF) of the invention. This sequence represents OCIF-CBst in which Gln 371 is substituted by Leu and amino acids 373-380 of the mature OCIF protein are deleted. These changes are caused by the introduction of a restriction site in the DNA encoding this protein. The OCIF of the invention has a molecular weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under non-reducing conditions. The protein is adsorbed onto activation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg.C or 30 mins at 56 deg.C, and is lost after 10 mins at 90 deg.C. OCIF is useful in the control of bone resorption and therefore in the treatment and prevention of disorders of bone resorption, e.g. osteoporosis.

CC Sequence 382 AA;

Query Match 97.7%; Score 2794; DB 20; Length 382;
 Best Local Similarity 99.7%; Pred. No. 1.05e-271; Mismatches 371; Conservative 0; Gaps 1; Indels 0;

Db	82	ycsprckelqyqgeenrrhrvcekegrvleefckhrcppqggvqggtperny	141	
Qy	82	YCSPPCKELQYQKQECNRTHRNVCCEKEGRYLEIERCLKHRCPPGFWQGTPERTV	141	
Db	142	ckrcpdgfrisntsskapcrktnesvglitqkgnahdicsgnsestqkgivt	201	
Qy	142	CKRCPDGFSSNETSSKAPCRKHTNCISVFGGLITQKGNATHDICSIGNESTOKCGIDVTL	201	
Db	202	ceafffrayptkftpnwlsvivdnipgtknaesverikrhssqefqllkwlhqn	261	
Qy	202	CEEAFFRAYPTKFTPNWLSQLVLDLPGTKNAESVERIKRHOSSQETQFOLKLWKHQ	261	
Db	262	kdqdkkkkkidicencsqrhighanltteqrlsimeslpkkgaaedektkackp	321	
Qy	262	KDQDPYVKKIQDIDCENSYORHIGANLTPEQLRSLMESUPGKKGAADEDEKTIKCKP	321	
Db	322	sdqikllslwrikqgdqtlkgmlahalkshktvhfpktvqslktriflslftmuykly	381	
Qy	322	SDQIKLLSLWRIKQGDQDTIKGLMALKHKSHTVHPKTVQSLKTRIFLHSFTMKLY	381	
Qy	382	qkiflem1q1lv	393	
Qy	382		393	
RESULT	10			
ID	R99336	standard; Protein; 360 AA.		
AC	R99336;			
DT	23-APR-1997	(first entry)		
DE	Mutated OCIF, OCIF-DCR1			
KW	Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption; osteoporosis.			
OS	Synthetic.			
FH	Location/Qualifiers			
FT	Peptide 1..21			
FT	/note= "Signal peptide"			
FT	protein 22..360			
FT	/note= "Mature OCIF-DCR1"			
FT	Misc_difference 22..23			
FT	/note= "Position of deletion, delta 2-42"			
PN	WO9626217-A1.			
PD	29-AUG-1996.			
PF	20-FEB-1996; J00374.			
PR	20-FEB-1995; J0-04977.			
PR	21-JUL-1995; J0-207508.			
PA	(SNOW) SNOW BRAND MILK PROD CO LTD.			
PT	Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;			
PT	Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H;			
RP	WPI: 96-402320/40.			
RP	NPDB: T33106.			
PT	DNA encoding osteoclastogenesis inhibitory factor protein - useful for bone resorption control, esp. treatment of osteoporosis			
PS	Claim 44; Page 105-107; 183pp; Japanese.			
CC	This sequence represents a mutated version of the full length osteoclastogenesis inhibitory factor (OCIF) of the invention. This sequence represents OCIF-DCR1 in which amino acids 2-42 of the mature OCIF protein are deleted. The OCIF of the invention has a molecular weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under non-reducing conditions. The protein is absorbed onto ion-exchangers or heparin and its activity is lowered after 10 mins at 70 deg.C or 30 mins at 56 deg.C, and is lost after 10 mins at 90 deg.C. OCIF is useful in the control of bone resorption and therefore in the treatment and prevention of disorders of bone resorption, e.g. osteoporosis.			
CC	Sequence 360 AA;			
Query	Match	88.7%	Score 2539; DB 20; Length 360; Best local similarity 98.3%; Pred. No. 2 64e-245; Matches 341; Conservative 1; Mismatches 4; Indels 1; Gaps 1;	
Db	15	sikvttq-epcpdhytdswhsdcilcyccpvcckelqyqgeenrrhrvcekegryleierclkhrcppqggvqgtperty	73	
Db	55	TAKWTVCCAPCPDHYTDWHISDECLYCCPVCCKELQYQGEENRRHRVCEKEGRYLEIERCLKHRCPPQGGVQGTPERTV	114	

74	iefclkhscppgfgvqagtpertntvkrccggffnetsskkapckhtcscvfgllit	133
115	IEFCIKHRSRSCPQPGVWQAGTPERTNTVCKRCPDGFSSNETSSKAPCRKHTNGSVEGLLT	174
134	qknatnadicgsenseqkcgadvtceaafrfraftkfpnnwsvlvdplgtkna	193
175	QKNATHDNICSGNSETOKGIDVTLCEEARFRAEPTKEIPPNWLSVLVDPLGTVNA	234
194	esverirkqhsseqtfqkliwkhpqkqdkdvwkklqgddicensesvrhigahntfeq	253
235	ESVERIRQQHSSEQQTQFLKLKHKHQKDQDVKKIQDIDLENSVORHIGAHNLTEQ	294
254	lsmlempgkqwgaeiaktskqpsdq1klls1wrlkingdqdlkg1mhahskt	313
295	LRSLMESELPGKKVGADEIETKACKPSQDQ1KLLSLWRIKNGDQDTLKGLMHALKHSKT	354
314	yrpkkttqsgikkirfhsfmyqyqkflfemignqvsvkisc1	360
355	YHPKTVIQSLKKTIRFLHSFTWYKUQKLFLEMIGNQVQSVKISCL	401
NULL	11	
R9943	standard; Protein; 351 AA.	
R9943;		
22-APR-1997	(first entry)	
Mutated	OCIF, OCIF-CC.	
Osteoclastogenesis	inhibitory factor; OCIF; heparin; bone resorption;	
osteoporosis.		
Synthetic.		
Key	Location/Qualifiers	
Peptide	1..21	
/note	"Signal peptide"	
Protein	22..351	
/note	"Mature OCIF-CC"	
WP9626217-AL		
29-AUG-1996		
20-FEB-1996	J00374	
21-JUL-1995	JP-05497.	
(SNOW) SNOW BRAND MILK PROD CO LTD.		
Goto M., Higashio K., Kobayashi F., Mochizuki S., Morihaga T.,		
Nakagawa N., Shima N., Tsuda E., Ueda M., Yano K., Yasuda H.;		
WRI: 96-140320/40.		
N PDB: 13313.		
DNA encoding osteoclastogenesis inhibitory factor protein - useful		
for bone resorption control, esp. treatment of osteoporosis		
Claim 65; Page 119-121; 183pp; Japanese.		
This sequence represents a mutated version of the full length		
osteoclastogenesis inhibitory factor (OCIF) of the invention. This		
sequence represents OCIF-CC in which amino acids 331-380 of the		
mature OCIF protein are deleted. The OCIF of the invention		
has a molecular weight by SDS-PAGE of 60 kD under reducing conditions		
and 120 kD under non reducing conditions. The protein is adsorbed onto		
cation-exchangers or heparin and its activity is lowered after 10 mins		
at 70 deg C or 30 mins at 56 deg C, and is lost after 10 mins at 90		
deg C. OCIF is useful in the control of bone resorption and therefore		
in the treatment and prevention of disorders of bone resorption, e.g.		
osteoporosis.		
Sequence	351 AA:	
every March	86.7%	
every Local Similarity	100.0%	
matches	330; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	
22	etfppkylhydeetshqilcakcpattyqkhtakwktvcapcdphydswtntsdecl	81
22	ETFPKYLHYDEETSTQILCQKCPCTYLNKHTAKWKTVCAPCDPHYDWSWNTSDECL	81
82	ycspvckelqyvqkqecnrthrvceckegryleefcikhsrpqpgfgvqagtpertntv	141
82	YCPVCKELQYVQECNRTHRVCECKEGRYLEEFCLKHRSRCPQPGFGVQAGTPERTNTV	141
YCPVCKELQYVQECNRTHRVCECKEGRYLEEFCLKHRSRCPQPGFGVQAGTPERTNTV	141	

QY	202	ceaafrf-favptkftppwlvnvdnpgtkvnaesverikrhssqefqflkwkhn 261	262	ceaafrf-favptkftppwlvnvdnpgtkvnaesverikrhssqefqflkwkhn 261	
QY	202	CKRCPDGFFSNETSSKAPCRKHTNCVFGFLLTQKGNATHDNICSGNSESTOKCGIDVT 201	262	CKRCPDGFFSNETSSKAPCRKHTNCVFGFLLTQKGNATHDNICSGNSESTOKCGIDVT 201	
Db	202	ceaafrf-favptkftppwlvnvdnpgtkvnaesverikrhssqefqflkwkhn 261	262	ceaafrf-favptkftppwlvnvdnpgtkvnaesverikrhssqefqflkwkhn 261	
QY	202	KQDVKKLIQDLCNSVORHIGHLTEFQLRSIMESDPGKKVGAEDIKTICKP 321	262	KQDVKKLIQDLCNSVORHIGHLTEFQLRSIMESDPGKKVGAEDIKTICKP 321	
Db	322	sdqikllslwrikhgddtgimhalkh 351	322	sdqikllslwrikhgddtgimhalkh 351	
QY	322	SDQIKLLSLWRIKINGDQDTLKGMLHALKH 351	322	SDQIKLLSLWRIKINGDQDTLKGMLHALKH 351	
RESULT	12	R99949 standard; Protein: 321 AA.	RESULT	13	
R99949;			ID	R99937	
23-APR-1997	(first entry)		AC	R99937;	
DE	Mutated OCIF, OCIF-CSph		DT	22-APR-1997 (first entry)	
KW	Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption; osteoporosis.		DE	Mutated OCIF, OCIF-DC2.	
KW	osteoporosis.		DT	Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption; osteoporosis.	
OS	Synthetic.		OS	Synthetic.	
FH	Key	Location/Qualifiers	FH	Key	Location/Qualifiers
FT	Peptide	1..21	FT	Peptide	1..21
FT	peptide	1..21	FT	peptide	1..21
FT	/note= "signal peptide"		FT	/note= "Signal peptide"	
FT	protein	22..321	FT	protein	22..321
FT	/note= "Mature OCIF-CSph"		FT	/note= "Mature OCIF-DC2"	
FT	W096217-A1.		FT	Misc_difference 63..64	
PD	29-AUG-1996.		FT	(note= "Position of deletion, delta 43-84"	
PF	20-FEB-1996; JP0374.		FT	W096217-A1.	
PR	20-FEB-1995; JP-054977.		PD	29-AUG-1996.	
PR	21-JUL-1995; JP-207508.		PF	20-FEB-1996; JP0374.	
PR	21-JUL-1995; JP-207508.		PR	20-FEB-1995; JP-054977.	
PR	21-JUL-1995; JP-207508.		PR	21-JUL-1995; JP-207508.	
PA	(SNOW) SNOW BRAND MILK PROD CO LTD.		PA	(SNOW) SNOW BRAND MILK PROD CO LTD.	
PI	Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;		PI	Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T;	
PI	Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H;		PI	Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H;	
DR	WPI: 96-40220/40.		DR	WPI: 96-40220/40.	
DR	N-PSDB: T33167.		DR	N-PSDB: T33167.	
PT	DNA encoding osteoclastogenesis inhibitory factor protein - useful for bone resorption control, esp. treatment of osteoporosis		PT	DNA encoding osteoclastogenesis inhibitory factor protein - useful for bone resorption control, esp. treatment of osteoporosis	
PS	Claim 47; Page 107-109; 183pp; Japanese.		PS	Claim 47; Page 107-109; 183pp; Japanese.	
CC	This sequence represents a mutated version of the full length osteoclastogenesis inhibitory factor (OCIF) of the invention. This sequence represents OCIF-DC2 in which amino acids 43-84 of the mature OCIF protein are deleted. The OCIF of the invention has a molecular weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under non-reducing conditions. The protein is adsorbed onto cation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg. C or 30 mins at 56 deg. C, and is lost after 10 mins at 90 deg. C. OCIF is useful in the control of bone resorption and therefore the introduction of a restriction site in the DNA encoding this protein.		CC	This sequence represents a mutated version of the full length osteoclastogenesis inhibitory factor (OCIF) of the invention. This sequence represents OCIF-DC2 in which amino acids 43-84 of the mature OCIF protein are deleted. The OCIF of the invention has a molecular weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under non-reducing conditions. The protein is adsorbed onto cation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg. C or 30 mins at 56 deg. C, and is lost after 10 mins at 90 deg. C. OCIF is useful in the control of bone resorption and therefore the introduction of a restriction site in the DNA encoding this protein.	
CC	The OCIF of the invention has a molecular weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under non-reducing conditions. The protein is adsorbed onto cation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg. C or 30 mins at 56 deg. C, and is lost after 10 mins at 90 deg. C. OCIF is useful in the control of bone resorption and therefore the introduction of a restriction site in the DNA encoding this protein.		CC	The OCIF of the invention has a molecular weight by SDS-PAGE of 60 kD under reducing conditions and 120 kD under non-reducing conditions. The protein is adsorbed onto cation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg. C or 30 mins at 56 deg. C, and is lost after 10 mins at 90 deg. C. OCIF is useful in the control of bone resorption and therefore the introduction of a restriction site in the DNA encoding this protein.	
CC	under reducing conditions and 120 kD under non-reducing conditions. The protein is adsorbed onto cation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg. C or 30 mins at 56 deg. C, and is lost after 10 mins at 90 deg. C. OCIF is useful in the control of bone resorption and therefore the introduction of a restriction site in the DNA encoding this protein.		CC	under reducing conditions and 120 kD under non-reducing conditions. The protein is adsorbed onto cation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg. C or 30 mins at 56 deg. C, and is lost after 10 mins at 90 deg. C. OCIF is useful in the control of bone resorption and therefore the introduction of a restriction site in the DNA encoding this protein.	
CC	resorption and therefore in the treatment and prevention of disorders of bone resorption, e.g. osteoporosis.		CC	resorption and therefore in the treatment and prevention of disorders of bone resorption, e.g. osteoporosis.	
CC	Sequence 359 AA;		CC	Sequence 359 AA;	
CC	Query Match 77.5%; Score 2218; DB 20; Length 359; Best Local Similarity 89.4%; Pred. No. 4.06e-212; Matches 312; Conservative 5; Mismatches 26; Indels 6; Gaps		CC	Query Match 77.5%; Score 2218; DB 20; Length 359; Best Local Similarity 89.4%; Pred. No. 4.06e-212; Matches 312; Conservative 5; Mismatches 26; Indels 6; Gaps	
Db	15 sikttaq-eftpkylhyde-etsqg llcdk-cppylqkhatkvtvaecckry 70		Db	15 sikttaq-eftpkylhyde-etsqg llcdk-cppylqkhatkvtvaecckry 70	
QY	55 TAKWKTVCAPCPDHY-YIDSWTNSDECYCSVPCKELEYVKOBNCRTHNRC-ECKGCRY 112		QY	55 TAKWKTVCAPCPDHY-YIDSWTNSDECYCSVPCKELEYVKOBNCRTHNRC-ECKGCRY 112	
Db	71 leiefcikhrscppgfgvqgqatperntvckrcpdpfifsnetskakporthctusvfll 130		Db	71 leiefcikhrscppgfgvqgqatperntvckrcpdpfifsnetskakporthctusvfll 130	
QY	113 LEIFCFKHSRCPGFGVQGSPERNVCKRCPDPFIFSNESSSKAPRKHTNCVFGLL 172		QY	113 LEIFCFKHSRCPGFGVQGSPERNVCKRCPDPFIFSNESSSKAPRKHTNCVFGLL 172	
Db	131 lqkgnathdnicsgsnsestqkgdtkvceaffravptkftppwlvnvdnpgtkv 190		Db	131 lqkgnathdnicsgsnsestqkgdtkvceaffravptkftppwlvnvdnpgtkv 190	
QY	173 LTKGNATHDNICSGNSESTOKCGIDVTCLEEAFFRFAVPTKFTPPWLSVLDNPGKV 232		QY	173 LTKGNATHDNICSGNSESTOKCGIDVTCLEEAFFRFAVPTKFTPPWLSVLDNPGKV 232	
Db	191 nasverikrqissqeqffgllkwkhnkdqdklalcaesvgrhghnlf 250		Db	191 nasverikrqissqeqffgllkwkhnkdqdklalcaesvgrhghnlf 250	
QY	233 NAESVERIKRQHSSQEQFTFOLKLWKHONKDQDKLALCAESVGRHGHNLF 292		QY	233 NAESVERIKRQHSSQEQFTFOLKLWKHONKDQDKLALCAESVGRHGHNLF 292	
Db	251 eqqrsimeslpqkvgqaediektikacpsqikllslwrikhgddtgimhalkh 310		Db	251 eqqrsimeslpqkvgqaediektikacpsqikllslwrikhgddtgimhalkh 310	
QY	293 FQPSVMSRCKVYCFKVKVQKCNTRHNCVCECKGCRYLEIFCLKHSRCPGFGVQGSPERNVCKRCPDPFIFSNESSSKAPRKHTNCVFGLL 350		QY	293 FQPSVMSRCKVYCFKVKVQKCNTRHNCVCECKGCRYLEIFCLKHSRCPGFGVQGSPERNVCKRCPDPFIFSNESSSKAPRKHTNCVFGLL 350	
Db	142 CKRCPDGFFSNETSSKAPCRKHTNCVFGFLLTQKGNATHDNICSGNSESTOKCGIDVT 201		Db	142 CKRCPDGFFSNETSSKAPCRKHTNCVFGFLLTQKGNATHDNICSGNSESTOKCGIDVT 201	
QY	142 CKRCPDGFFSNETSSKAPCRKHTNCVFGFLLTQKGNATHDNICSGNSESTOKCGIDVT 201		QY	142 CKRCPDGFFSNETSSKAPCRKHTNCVFGFLLTQKGNATHDNICSGNSESTOKCGIDVT 201	

Db	311 ktyhfpktvqslkktirfhsftmyklyhkflemiqnqgsvkisc1 359 : : : : : : : : : : 353 KYHFPTVQSLKKTIRFLHSFTMVKLYQKLFLEMIGNOVOSVKISCI 401	QY	322 SDQTLKLISLWRTRNGDQDTLKGMLHAKHSKTYHFPTVQSLKKTIRFLHSFTMVKLY 381 : : : : : : : : 344 qkiflemiqnqgsvk1 360
QY		382 QKLFLEMIGNOVOSVKI 398	
RESULT	14		
ID	R99938; standard; Protein; 360 AA.		
AC	R99938;		
DT	23-APR-1997 (first entry)		
DE	Mutated OCIF, OCIF-DCR3.		
KW	Osteoclastogenesis inhibitory factor; OCIF; heparin; bone resorption; osteoporosis.		
OS	Synthetic.		
FH	Location/Qualifiers		
FT	Peptide 1..21		
FT	/note= "Signal peptide"		
FT	/note= "Mature OCIF-DCR3"		
FT	Misc_difference 105..106		
FT	/note= "Position of deletion, delta 85-122"		
FT	W0966217-A1.		
FT	29-AUG-1996; J00374.		
PD	20-FEB-1995; J054977.		
PR	21-JUL-1995; JP-207508.		
PA	(SNOW BRAND MILK PROD CO LTD. Goto M, Higashio K, Kobayashi F, Mochizuki S, Morinaga T; PI Nakagawa N, Shima N, Tsuda E, Ueda M, Yano K, Yasuda H; WPI: 96-4023/040; DR N-PSDB; T33165.		
PT	DNA encoding osteoclastogenesis inhibitory factor protein - useful for bone resorption control, esp. treatment of osteoporosis		
PS	Claim 50; Page 109-111; 183PP; Japanese.		
CC	This sequence represents a mutated version of the full length osteoclastogenesis inhibitory factor (OCIF) of the invention. This sequence represents OCIF-DCR3 in which amino acids 85-122 of the mature OCIF protein are deleted. The OCIF of the invention has a molecular weight by SDS-PAGE of 60 kd under reducing conditions and 120 kd under non-reducing conditions. The protein is adsorbed onto cation-exchangers or heparin and its activity is lowered after 10 mins at 70 deg.C or 30 mins at 56 deg.C, and is lost after 10 mins at 90 deg.C. OCIF is useful in the control of bone resorption and therefore in the treatment and prevention of disorders of bone resorption, e.g. osteoporosis.		
CC	Sequence 360 AA;		
SQ	query Match st Local Similarity 89.9%; Pred. No. 6.78e-202; Mismatches 0; Indels 38; Gaps 1; tches 339; Conservative 0; Mismatches 1; Indels 38; Gaps 1;		
Db	22 etfppkylhydeetsqlk1dkcpptylkqhcatakwtkvcapodphytwsdhtsdecl 81 : : : : : : : : : 22 ETEPPKYLHYDEETSQQLK1DKCPPTYLKQHCATAKWKVCAPODPHYTWSHTSDHCL 81	Db	22 etfppkylhydeetsqlk1dkcpptylkqhcatakwtkvcapodphytwsdhtsdecl 81 : : : : : : : : 22 ETEPPKYLHYDEETSQQLK1DKCPPTYLKQHCATAKWKVCAPODPHYTWSHTSDHCL 81
QY	82 ycspvckelqyvkecnrthnrvc----- 105 : : : : : 82 YCSPVCKELQYVKECNRTHNRCCECKEGRYLEIEFCLKHSCPPFGVQAGTPERNIV 141	Db	82 ycspvckelqyvkecnrthnrvc----- 105 : : : : 82 YCSPVCKELQYVKECNRTHNRCCECKEGRYLEIEFCLKHSCPPFGVQAGTPERNIV 141
Db	105 --rcpafgfsnertsksaprkhtcavqllqrgknatdhncsgnsestgkrgidt1 163 : : : : : : 142 CKRCPDGFSSNETSSKAPCRKHTNCVSGFLLTQKNAUTHNICSNSNSESTQCGDVT1 201	Db	142 ck----- 159 : 142 CKRCPDGFSSNETSSKAPCRKHTNCVSGFLLTQKNAUTHNICSNSNSESTQCGDVT1 201
QY	164 ceeafirfravptkpnw1svlvdnlpgtkvnaesvekrqhssegtfqlkwtq 223 : : : : : 202 CEEAFFRFRAVPTKPTPNW1SVLVDNLPGTKVNAESVERIKHQHSSEGTFLKWTQ 261	Db	160 ceeafirfravptkpnw1svlvdnlpgtkvnaesvekrqhssegtfqlkwtq 219 : : : : 202 CEEAFFRFRAVPTKPTPNW1SVLVDNLPGTKVNAESVERIKHQHSSEGTFLKWTQ 261
Db	224 kdqdvkkiqldalcensvqrhghanlfreqrlsimespgkvgaedektkackp 283 : : : : 262 KQDQIVKKTQDLCNSVQRHGANLTFEQLRSLSLSPKKVGADEKTIACKP 321	Db	220 kdqdvkkiqldalcensvqrhghanlfreqrlsimespgkvgaedektkackp 279 : : 262 KQDQIVKKTQDLCNSVQRHGANLTFEQLRSLSLSPKKVGADEKTIACKP 321
QY	284 sdqikiklslwriknqdgdt1kgmlhalksktyhfpktvqslkktirfhsftmky 343 : : 280 sdqikiklslwriknqdgdt1kgmlhalksktyhfpktvqslkktirfhsftmky 339	Db	280 sdqikiklslwriknqdgdt1kgmlhalksktyhfpktvqslkktirfhsftmky 339

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Oy 322 SDQILKILSLWRIKNGDDTLKGMLHALKHSKYHFPKVUTQSILKTTIRFLHSTMYKLY 381

Db 340 qklemignqavqsykiscl 359
||||||||||||||||||||||||||||||||||||||||
Oy 382 OKLEMIGNOVQSYKISCL 401

Search completed: Wed Aug 20 09:52:27 1997
Job time : 64 secs.